

## **AMENDMENTS TO THE CLAIMS**

**Please rewrite the claims as follows:**

1. (Currently Amended) A method to distribute a user-defined name of a user's wireless device in an ad hoc network, comprising:

associating a member device address with a member-defined name, in a member name record stored in at least one member device in an ad hoc network;

distributing a name distribution message in the ad hoc network, said name distribution message associating a user device address with a user-defined name and including an operation code;

receiving the a-name distribution message at the at least one member device ~~associating a user device address with a user defined name, said name distribution message including an operation code;~~

selecting an operation in response to said operation code, to perform a corresponding one of a plurality of name distribution functions relating to the user-defined name and the ad hoc network;

comparing the user-defined name with the member-defined name to automatically resolve a name conflict;

storing the user device address in association with the user-defined name in a user name record in the at least one member device, if there is no name conflict; and

performing the corresponding one of a plurality of name distribution functions relating to the user-defined name and the ad hoc network in response to the selecting step.

2. (Original) The method of claim 1, which further comprises:  
associating the user device address with a user-defined alternate name, in the name distribution message; and  
substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict.

3. (Previously Presented) The method of claim 1, which further comprises:  
associating the member device address with a member-defined alternate name, in the member name record stored in the at least one member device; and  
substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict.

4. (Previously Presented) The method of claim 1, which further comprises:  
distributing the name distribution message to the at least one member device;  
comparing the user-defined name with the member-defined name in the at least one member device;  
storing the user device address in association with the user-defined name in a user name record in the at least one member device, if there is no name conflict; and  
using the user-defined name at the at least one member device, to access the user's wireless device in the ad hoc network.

5. (Original) The method of claim 4, which further comprises:  
associating the user device address with a user-defined alternate name, in the name distribution message; and

substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict.

6. (Previously Presented) The method of claim 4, which further comprises:

associating the member device address with a member-defined alternate name, in the member name record stored in the at least one member device; and

substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict.

7. (Original) The method of claim 1, which further comprises:

receiving the name distribution message from the user's device when connecting the user's wireless device to the ad hoc network.

8. (Original) The method of claim 1, which further comprises:

receiving the name distribution message from the user's device, which is located in a second ad hoc network, when connecting the second ad hoc network with the first said ad hoc network.

9. (Original) The method of claim 1, which further comprises:

associating the user device address with a user-defined alternate name and a user device time stamp, in the name distribution message; and

substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict and the user device time stamp is younger than a member device time stamp.

10. (Original) The method of claim 1, which further comprises:

associating the user device address with a user-defined alternate name and a user device time stamp, in the name distribution message; and

substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict and the user device time stamp is older than a member device time stamp.

11. (Previously Presented) The method of claim 1, which further comprises:

associating the member device address with a member-defined alternate name and a member device time stamp, in the member name record stored in the at least one member device; and

substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict and the member device time stamp is younger than a user device time stamp.

12. (Previously Presented) The method of claim 1, which further comprises:

associating the member device address with a member-defined alternate name and a member device time stamp, in the member name record stored in the at least one member device; and

substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict and the member device time stamp is older than a user device time stamp.

13. (Previously Presented) The method of claim 1, which further comprises:  
including a current hop count value and a maximum hop count value in the name distribution message;  
incrementing the current hop count value in the at least one member device; and  
displaying the user-defined name in the at least one member device if the current hop count value is not greater than the maximum hop count value.

14. (Previously Presented) The method of claim 1, which further comprises:  
associating the user device address with a user-defined permission to display, in the name distribution message; and  
granting to the at least one member device, permission to display the user-defined name.

15. (Previously Presented) The method of claim 1, which further comprises:  
storing a member device address in a member name record stored in a plurality of member devices in the ad hoc network;  
receiving a name distribution message associating the member device address with a delete device operation code;  
distributing the name distribution message, to the plurality of member devices;  
selecting a delete device operation to perform in response to said delete device operation code in said plurality of member devices; and  
deleting the member record from the plurality of member devices in response to said selecting step.

16. (Previously Presented) The method of claim 1, which further comprises:

receiving a name distribution message associating the member device address with a change name operation code;

distributing the name distribution message to the at least one member device;

selecting a change name operation to perform in response to said change name operation code in said at least one member device; and

changing the member-defined name in the member record of the at least one member device-in response to said selecting step.

17. (Previously Presented) The method of claim 1, which further comprises:

associating a member device address with a member-defined name and a name display attribute, in a member name record stored in a plurality of member devices in the ad hoc network;

receiving a name distribution message associating the member device address with a change display attribute operation code;

distributing the name distribution message, to the plurality of member devices;

selecting a change display attribute operation to perform in response to said change display attribute operation code in said plurality of member devices; and

changing the name display attribute of the member-defined name in the member record of the plurality of member devices in response to said selecting step.

18. (Previously Presented) The method of claim 1, which further comprises:

associating a member device address with a member-defined name and a name display attribute, in a member name record stored in a plurality of member devices in the ad hoc network;

receiving a name distribution message associating the member device address with a name flash display attribute operation code;

distributing the name distribution message to the plurality of member devices;

selecting a name flash display attribute operation to perform in response to said name flash display attribute operation code; and

flashing the display of the member-defined name in the plurality of member devices in response to said selecting step.

19. (Previously Presented) The method of claim 1, which further comprises:

associating a member device address with a security attribute, in a member name record stored in a plurality of member devices in the ad hoc network;

receiving a name distribution message associating the member device address with a change security attribute operation code;

distributing the name distribution message to the plurality of member devices;

selecting a change security attribute operation to perform in response to said change security attribute operation code; and

changing the security attribute in the member record in the plurality of member devices in response to said selecting step.

20. (Previously Presented) The method of claim 1, which further comprises:

associating a member device address with a member-defined name and a security attribute, in a member name record stored in a plurality of member devices in the ad hoc network;

receiving a name distribution message associating the member device address with an

authorization list of member devices and a change security attribute operation code;  
distributing the name distribution message to the plurality of member devices;  
selecting a change security attribute operation to perform in response to said change security attribute operation code;  
changing the security attribute of a member device, if it is listed on the authorization list in response to said selecting step.

21. (Previously Presented) A method to distribute a user-defined name of a user's wireless device in an ad hoc network, comprising:

associating a member device address with a member-defined name, in a member name record stored in at least one member device in the ad hoc network;

distributing a name distribution message associating a user device address with a user-defined name and a user-defined alternate name, to the at least one member device, said name distribution message including an operation code;

selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to the ad hoc network;

comparing the user-defined name with the member-defined name in the at least one member device to automatically resolve a name conflict;

storing the user device address in association with the user-defined name as an effective user name in a user name record in the at least one member device, if there is no name conflict;

storing the user device address in association with the user-defined alternate name as the effective user name in the user name record in the at least one member device, if there is a name conflict; and

performing the corresponding one of the plurality of name distribution functions relating



to the effective user name and the ad hoc network in response to said selecting step.

22. (Previously Presented) The method of claim 21, which further comprises:

associating the member device address with the member-defined name and a member-defined alternate name, in the member name record;

distributing a second name distribution message associating the user device address with the user-defined name, to the at least one member device;

substituting the member-defined alternate name for the member-defined name in the member name record in the at least one member device, if there is a name conflict;

storing the user device address in association with the user-defined name in a second user name record in the at least one member device; and

using the user-defined name from the second user name record to access the user's wireless device in the ad hoc network.

23. (Previously Presented) The method of claim 21, which further comprises:

associating the member device address with the member-defined name and an annunciator attribute, in the member name record;

receiving a name distribution message associating the member device address with a change display attribute indication;

distributing the name distribution message associating the member device address with a change display attribute indication, to the at least one member device; and

changing the annunciator attribute of the member-defined name in the member record.

24. (Original) The method of claim 23, wherein said annunciator attribute controls the

font of the member-defined name as it is displayed.

25. (Original) The method of claim 23, wherein said annunciator attribute controls the color of the member-defined name as it is displayed.

26. (Original) The method of claim 23, wherein said annunciator attribute controls the animation of the member-defined name as it is displayed.

27. (Original) The method of claim 23, wherein said annunciator attribute controls a sound played in conjunction with the display of the member-defined name.

28. (Previously Presented) The method of claim 21, which further comprises:

- associating the member device address with the member-defined name, in the member name record stored in at least one member device in a first ad hoc network;
- receiving a name distribution message associating a second user device address with a second user-defined name from a user's device which is located in a second ad hoc network, when connecting the second ad hoc network with the first ad hoc network;
- comparing the second user-defined name with the member-defined name;
- storing the second user device address in association with the second user-defined name in a user name record in the at least one member device in the first ad hoc network, if there is no name conflict; and
- using the second user-defined name at the at least one member device to access the user's wireless device in the first ad hoc network.

29. (Previously Presented) The method of claim 21, for connecting two ad hoc networks, comprising:

associating a first member device address with a first member-defined name, in a first member name record stored in a first member device in a first ad hoc network;

associating a second member device address with a second member-defined name, in a second member name record stored in a second member device in a second ad hoc network;

receiving a first name distribution message in the second ad hoc network, associating a first user device address with a first user-defined name from a first user's device which is located in the first ad hoc network, when connecting the second ad hoc network with the first ad hoc network;

receiving a second name distribution message in the first ad hoc network, associating a second user device address with a second user-defined name from a second user's device which is located in the second ad hoc network, when connecting the second ad hoc network with the first ad hoc network;

comparing the first user-defined name with the second member-defined name;

storing the first user device address in association with the first user-defined name in a first user name record in the second member device in the second ad hoc network, if there is no name conflict;

storing the second user device address in association with the second user-defined name in a second user name record in the first member device in the first ad hoc network, if there is no name conflict;

using the first user-defined name at the second member device to access the first user's wireless device in the first ad hoc network; and

using the second user-defined name at the first member device to access the second user's

wireless device in the second ad hoc network.

30. (Currently Amended) A method to distribute user-defined names of wireless devices when connecting two ad hoc networks, comprising:

associating a member device address with a member-defined name, in a member name record stored in at least one member device in a first ad hoc network;

connecting a second ad hoc network containing a user device, to the first ad hoc network;

distributing a name distribution message in the ad hoc network, said name distribution message associating a user device address with a user-defined name and including an operation code;

receiving the a-name distribution message in the first ad hoc network from the user device [,]~~the message associating a user device address with a user-defined name, said name distribution message including an operation code ;~~

selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to at least one of the ad hoc networks;

comparing the user-defined name with the member-defined name;

storing the user device address in association with the user-defined name in a user name record in the at least one member device in the first ad hoc network, if there is no name conflict; and

performing the corresponding one of the plurality of name distribution functions relating to the user-defined name and the at least one ad hoc network in response to said selecting step.

31. (Original) The method of claim 30, which further comprises:

associating the user device address with a user-defined alternate name and a user device

time stamp, in the name distribution message; and

substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict and the user device time stamp is younger than a member device time stamp.

32. (Original) The method of claim 30, which further comprises:

associating the user device address with a user-defined alternate name and a user device time stamp, in the name distribution message; and

substituting the user-defined alternate name for the user-defined name in the user name record, if there is a name conflict and the user device time stamp is older than a member device time stamp.

33. (Original) The method of claim 30, which further comprises:

associating the member device address with a member-defined alternate name and a member device time stamp, in the member name record stored in the plurality of member devices; and

substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict and the member device time stamp is younger than a user device time stamp.

34. (Previously Presented) The method of claim 30, which further comprises:

associating the member device address with a member-defined alternate name and a member device time stamp, in the member name record; and

substituting the member-defined alternate name for the member-defined name in the member name record, if there is a name conflict and the member device time stamp is older than a user device time stamp.

35. (Previously Presented) The method of claim 30, which further comprises:  
including a current hop count value and a maximum hop count value in the name  
distribution message;  
incrementing the current hop count value in the at least one member device; and  
displaying the user-defined name in the plurality of member devices if the current hop  
count value is not greater than the maximum hop count value.

36. (Previously Presented) The method of claim 30, which further comprises:  
associating the user device address with a user-defined permission to display, in the name  
distribution message; and  
granting to the at least one member device, permission to display the user-defined name.

37. (Previously Presented) The method of claim 30, wherein the wireless devices use a  
IEEE 802.11 Wireless LAN standard.

38. (Original) The method of claim 30, wherein the wireless devices use the High  
Performance Radio Local Area Network (HIPERLAN) standard.

39. (Original) The method of claim 30, wherein the wireless devices use the Bluetooth  
standard.

40. (Original) The method of claim 30, wherein the wireless devices use the Digital  
Enhanced Cordless Telecommunications (DECT) standard.

41. (Original) The method of claim 30, wherein the wireless devices use the Shared Wireless Access Protocol (SWAP) standard.

42. (Previously Presented) The method of claim 30, wherein the wireless devices use the IEEE 802.15 Wireless Personal Area Network (WPAN) standard.

43. (Original) The method of claim 30, wherein the wireless devices use the Infrared Data Association (IrDA) standard.

44. (Original) The method of claim 30, wherein the wireless devices use the Multimedia Mobile Access Communication (MMAC) Systems standard.

45. (Currently Amended) A system to distribute a user-defined name of a user's wireless device in an ad hoc network, comprising:

a memory, for storing a member device address in association with a member-defined name, in a member name record stored in a member device in an ad hoc network;

an input, for receiving a name distribution message distributed in the ad hoc network, said name distribution message associating a user device address with a user-defined name, said name distribution message including an operation code;

a selector coupled to the input, for selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to the ad hoc network;

a comparator coupled to the memory and the input, for comparing the user-defined name

with the member-defined name to automatically resolve a name conflict;

said memory storing the user device address in association with the user-defined name in a user name record, if there is no name conflict; and

a processor coupled to the memory, for performing the corresponding one of the plurality of name distribution functions relating to the user-defined name and the ad hoc network in response to said selecting.

46. (Previously Presented) The system as claimed in claim 62, comprising:

said input receiving a second name distribution message from a second user device in a second ad hoc network, the second message associating a second user device address with a second user-defined name;

said comparator comparing the second user-defined name with the member-defined name;

said memory storing the second user device address in association with the second user-defined name in a second user name record, if there is no name conflict; and

said interface using the second user-defined name at the member device to access the second user wireless device in the second ad hoc network.

47. (Currently Amended) A computer program product to distribute a user-defined name of a user's wireless device in an ad hoc network, comprising:

a computer readable medium;

program code in said computer readable medium for storing a member device address in association with a member-defined name, in a member name record in a member device in the ad hoc network;



program code in said computer readable medium for distributing a name distribution message in the ad hoc network, said name distribution message associating a user device address with a user-defined name and including an operation code;

program code in said computer readable medium for receiving the a-name distribution message at the member device ~~associating a user device address with a user-defined name, said name distribution message including an operation code;~~

program code in said computer readable medium for selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to the ad hoc network;

program code in said computer readable medium for comparing the user-defined name with the member-defined name to automatically resolve a name conflict;

program code in said computer readable medium for storing the user device address in association with the user-defined name in a user name record at the member device, if there is no name conflict; and

program code in said computer readable medium for performing the corresponding one of the plurality of name distribution functions relating to the user-defined name and the ad hoc network in response to said selecting.

48. (Previously Presented) A computer program product of claim 63, which further comprises: comprising:

program code in said computer readable medium for receiving a second name distribution message from a second user device in a second ad hoc network, the second message associating a second user device address with a second user-defined name;

program code in said computer readable medium for comparing the second user-defined name with the member-defined name;

program code in said computer readable medium for storing the second user device address in association with the second user-defined name in a second user name record, if there is no name conflict; and

program code in said computer readable medium for using the second user-defined name at the member device to access the second user wireless device in the second ad hoc network.

49. (Currently Amended) A method to distribute a user-defined name of a user's wireless device in an ad hoc network, comprising:

associating a member device address with a member-defined name, in an existing name table stored in at least one member device in the ad hoc network;

distributing a name distribution message in the ad hoc network, said name distribution message associating a user device address with a user-defined name in a new name table and including an operation code;

receiving ~~the~~ a-name distribution message ~~associating a user device address with a user-defined name in a new name table, said name distribution message including an operation code;~~

selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to the ad hoc network;

appending the new name table to the existing name table to form a composite name table;

comparing the user-defined name with the member-defined name to automatically resolve a name conflict;

storing the user device address in association with the user-defined name in the composite name table in the at least one member device, if there is no name conflict; and

performing the corresponding one of the plurality of name distribution functions relating to the user-defined name and the ad hoc network in response to said selecting.

50. (Previously Presented) The method of claim 64, which further comprises:

receiving a second name distribution message associating a second user device address with a second user-defined name in a second new name table, from a user's device which is located in a second ad hoc network, when connecting the second ad hoc network with the first said ad hoc network;

appending the second new name table to the existing name table to form a composite name table;

comparing the second user-defined name with the member-defined name;

storing the second user device address in association with the second user-defined name in the composite name table in the at least one member device in the first said ad hoc network, if there is no name conflict; and

using the second user-defined name at the at least one member device to access the second user wireless device in the first said ad hoc network.

51. (Currently Amended) A method to distribute user-defined names of users' wireless devices when connecting two ad hoc networks, comprising:

associating a first member device address with a first member-defined name, in a first existing name table stored in a first member device in a first ad hoc network;

associating a second member device address with a second member-defined name, in a second existing name table stored in a second member device in a second ad hoc network;

distributing a name distribution message in the ad hoc network, said name distribution message associating a user device address with a user-defined name and including an operation code;

receiving a first name distribution message including the first existing name table in the second ad hoc network, associating a first user device address with a first user-defined name from a first user's device which is located in the first ad hoc network, when connecting the second ad hoc network with the first ad hoc network, said first name distribution message including an operation code;

selecting an operation in response to said operation code to perform a corresponding one of a plurality of name distribution functions relating to the ad hoc network;

appending the first existing name table to the second existing name table to form a composite name table;

comparing the first user-defined name with the second member-defined name to automatically resolve a name conflict;

storing the first user device address in association with the first user-defined name in the composite name table in the second member device in the second ad hoc network, if there is no name conflict; and

performing the corresponding one of the plurality of name distribution functions relating to the ad hoc network in response to said selecting step.

52.(Previously Presented) The method of claim 65, which further comprises:

receiving a second name distribution message in the first ad hoc network from a second user device in the second network, the second message including the second existing name table associating a second user device address with a second user-defined name;

appending the first existing name table to the second existing name table to form a second composite name table;

comparing the second user-defined name with the first member-defined name;

storing the second user device address in association with the second user-defined name in the second composite name table in the at least one member device in the first ad hoc network, if there is no name conflict; and

using the second user-defined name at the at least one member device in the first ad hoc network to access the second user wireless device in the second ad hoc network.

53. (Previously Presented) The method of claim 1, which further comprises:

using the user-defined name at the at least one member device to access the user wireless device in the ad hoc network.

54. (Previously Presented) The method of claim 53, which further comprises:

said one of a plurality of name information distribution functions being adding a new device to the ad hoc network.

55. (Previously Presented) The method of claim 53, which further comprises:

said one of a plurality of name information distribution functions being deleting a device from the ad hoc network.

56. (Previously Presented) The method of claim 53, which further comprises:

said one of a plurality of name information distribution functions being changing a name of a device in the ad hoc network.

57. (Previously Presented) The method of claim 53, which further comprises:  
said one of a plurality of name information distribution functions being substituting a  
new member name record in the at least one member device.

58. (Previously Presented) The method of claim 53, which further comprises:  
said one of a plurality of name information distribution functions being specifying  
security attributes for distributing a name in the ad hoc network.

59. (Previously Presented) The method of claim 53, which further comprises:  
said one of a plurality of name information distribution functions being specifying  
display attributes for displaying a name in the ad hoc network.

60. (Previously Presented) The method of claim 53, which further comprises:  
said one of a plurality of name information distribution functions being specifying name  
flash display attributes for remotely flashing a displayed name in the ad hoc network.

61. (Previously Presented) The method of claim 53, which further comprises:  
using the user-defined name at the at least one member device to access the user's  
wireless device in the ad hoc network.

62. (Previously Presented) The system as claimed in claim 45, comprising:  
an interface coupled to the memory, for using the user-defined name to access the user's  
wireless device in the ad hoc network.

63. (Previously Presented) The computer program product of claim 47, comprising:  
program code in said computer readable medium for using the user-defined name to  
access the user's wireless device in the ad hoc network.

64. (Previously Presented) The method of claim 49, which further comprises:  
using the user-defined name at the plurality of member devices to access the user's  
wireless device in the ad hoc network.

65. (Previously Presented) The method of claim 51, which further comprises:  
using the first user-defined name at the second plurality of member devices to access the  
first user's wireless device in the first ad hoc network.